WSI InFlightTMCockpit Weather: A NASA SBIR Success Story

Presented by Arlo Gambell WSI Corporation







WSI InFlight™ Milestones



- 1978 NASA Storms Hazards Project Effects of Lightning on Aircraft using an F106B research aircraft.
- 1990 NASA SBIR Grant for Phase I Wx in Cockpit project, an outgrowth of the Storms Hazards Project.
- 1991 First flight of early cockpit weather system.
- 1992 SBIR Grant for Phase II Wx in Cockpit Project (ended in 1994).
- 2000 SBIR Grant for Phase III WX in Cockpit Project;
 ViGYAN begins commercialization of product.



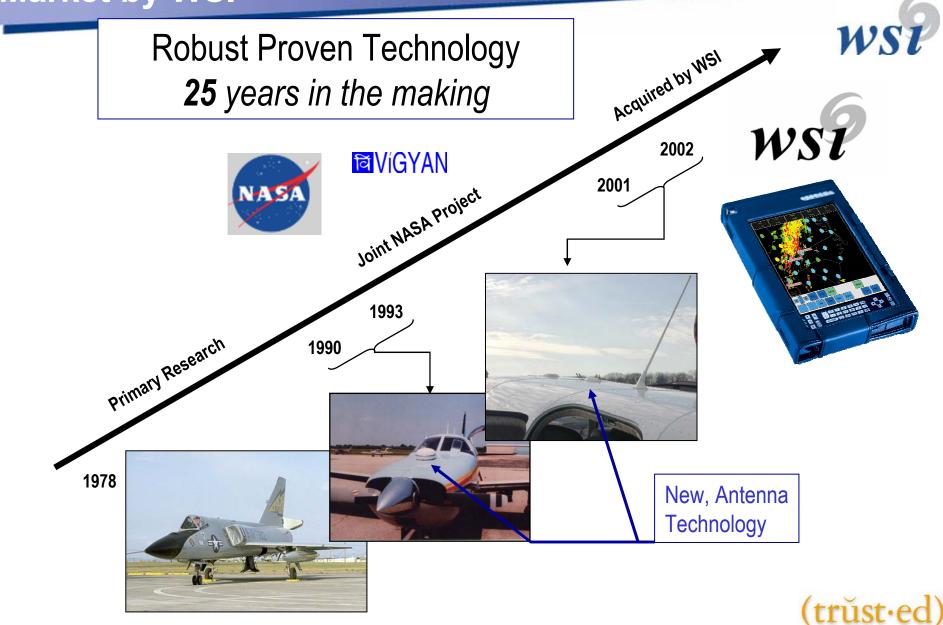
WSI InFlight™ Milestones (Cont).



- April 2002, ViGYAN spinoff, Pilot Weather Advisor, sold to WSI
- December 2002 WSI ships first commercial InFlight system.
- July 2003 InFlight STC obtained.
- September 2003: InFlight receives the AEA "R&D 100 Award" for Best Avionics Technology Solution of 2003.
- April 2004 WSI receives AEA Associate Member of the year award for efforts relative to InFlight.
- May 2004 Over 1000 WSI InFlight units sold



WSI InFlight: Developed With NASA – Brought to Market by WSI

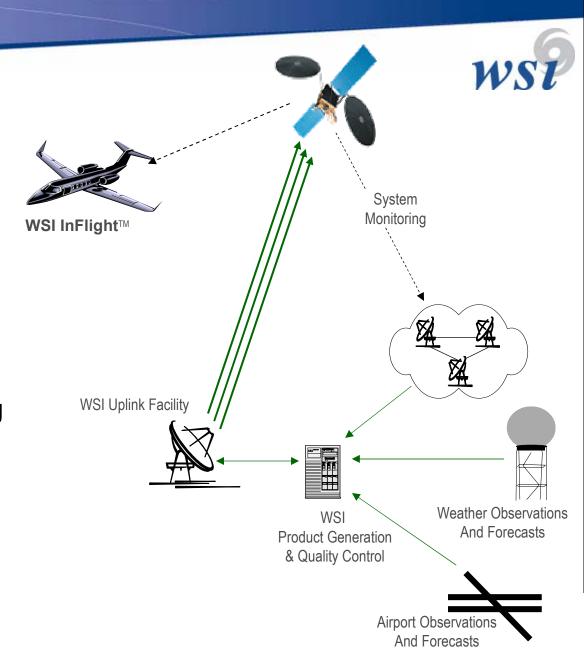


WSI InFlight: the Basics

 Continuously delivered satellite weather system for the cockpit

 Provides graphical and text weather data to the cockpit

 Displayed on customer's existing avionics display (MFD/EFB)



WSI InFlight: the Basics (Cont.)



- Geostationary satellite provides continuous L-Band data broadcast.
- Coverage: Conterminous US
- Update Frequency: All data products updated every 5 minutes.
- Data products currently provided:
 - 2 km resolution WSI NOWrad™composite radar for the US;
 Environment Canada Radar for lower Canada and the Maritimes (New); 13 Level Radar Color Palette Option (New).
 - Plotted SIGMETs, AIRMETs, and Convective SIGMETs
 - Plotted TFRs (New)
 - Graphical METARs
 - Graphical Wind/Temp Aloft forecasts updated hourly, 3000' up to FL 510 (New)
 - Text METARs, TAFs, SIGMETs, AIRMETs, TFRs



WSI InFlight: the Basics (Cont)





Receiver



Various Antenna Options



InFlight 16-Color Level NOWRAD Radar





InFlight NOWrad with Echo Tops and Storm Table Information



InFlight TFRs





InFlight Convective SIGMETs



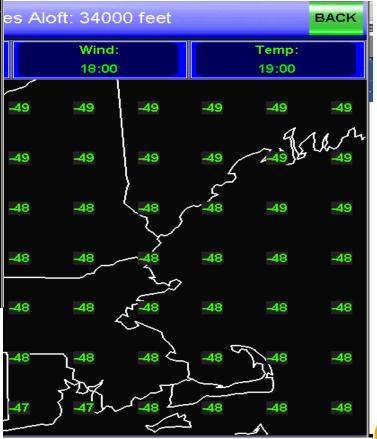
New: RUC Based Winds/Temps aloft forecasts



•Graphically Plotted Winds & Temperatures Aloft

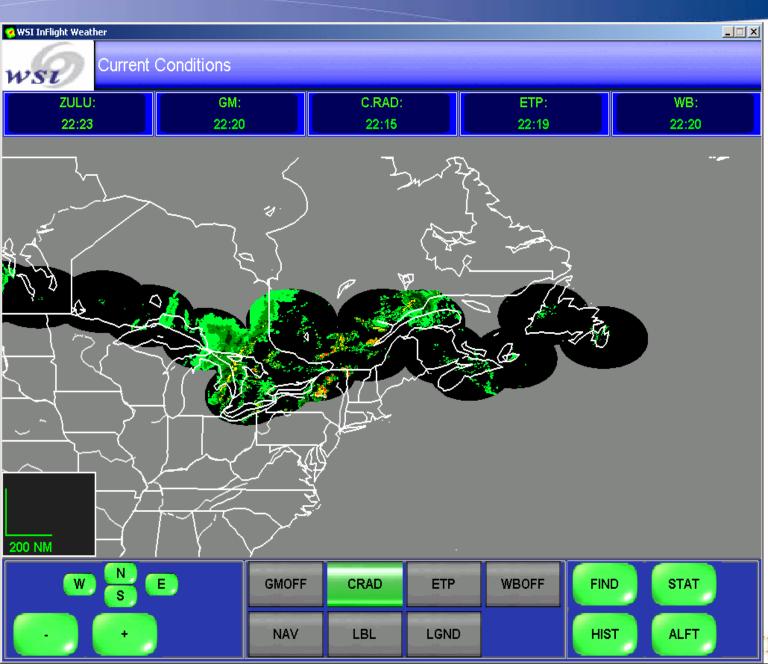


- -13 Isobaric levels from 3,000' to FL 510
- -Hourly updates using Rapid Update Cycle (RUC) model output.





Canadian Radar





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Canadian METARs and TAFs





WSI InFlight™ Cockpit Weather Solutions



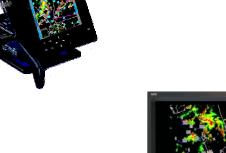
Some Display Options Available For the Cockpit

- Handheld/Pocket PC
- Tablet PCs
- Garmin AT MX20
- L3 ILink
- EFBs (ADR, CMC, FDR, eFlight Systems, Paperless Cockpit)





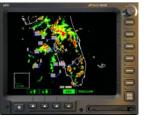




Coming Soon

- Universal UCD
- Chelton EFIS
- Sandel EHSI









Covering Pilots From Pre-Flight Through Touchdown



--- Home/Hotel---



WSI Pilotbrief Online™

--- At the Airport --



WSI Pilotbrief Pro[™]

---- During Flight -----



WSI InFlight[™]



"InFlight at Sea" The Weather Channel® Marine™







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Questions?

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